

Remarks

In view of the following amendments and remarks, favorable reconsideration of the outstanding office action is respectfully requested. Claims 1 – 19 remain in this application. Claims 1, 12, and 16 have been amended. New claim 19 has been added.

**1. Allowed Claims/Subject Matter**

Applicants note with appreciation that the Examiner has indicated the subject matter of claim 2 and claim 11 is patentable, and would be allowable if rewritten in independent form.

**2. § 102 Rejections**

A. The Examiner has rejected claims 1, 3, 5-10 and 12-15 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,126,704 to Dittmer et al. (hereinafter Dittmer).

Dittmer is directed to a polyphase divider/combiner that includes a common input/output port and a plurality of N output/input ports, wherein N is an even integer greater than two. N electrical signal transmission paths are provided with each extending from the common input/output port to a respective one of the N output/input ports. The N electrical signal transmission paths are of N different electrical lengths such that the output/input ports are out of phase relative to each other by  $180/N$  degrees.

The applicants have amended both claim 1 and claim 12 to more particularly point out and distinctly claim the subject matter which they regard as their invention. In particular, amended and claim 12 recite a device that accepts “one to four amplifiers and the fraction of power provided to each of said amplifiers is  $1/N$  where N is the number of operative amplifiers.”

Accordingly, both claim 1 and claim 12 are allowable under 35 U.S.C. § 102(b). Claims 2 – 10 and 13 – 15 are also allowable in their own right under 35 U.S.C. § 102(b). The applicants respectfully request that the rejection of claims 1, 3, 5-10 and 12-15 under 35 U.S.C. § 102(b) be withdrawn.

B. The Examiner has rejected claims 16 – 18 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,323,734 to Ke.

Ke is directed to an impedance transforming device includes a first port capable of receiving first signals. A first switching device is electrically connected to the first port. The first switching device is electrically and dynamically connected to an input of one of at least two impedance transforming devices. A second switching device is electrically and dynamically connected to an output of the impedance transforming device. A second port, electrically connected to the second switching device, is capable of outputting second signals. The impedance transforming device is determined at least as a function of respective impedance transformations of the impedance transforming devices.

Applicants respectfully assert that the Examiner has failed to make a prima facie case of anticipation with regard to independent claim 16. The Examiner's statement of rejection is an explicit admission that Ke does not teach, at least, the splitter circuit as recited in claim 16. Indeed, a review of Figure 2 (cited by the Examiner) reveals that Ke discloses a splitter that consists of a "smart or passive filter" 114. Filter 114 is coupled to the amplifiers 122.

Nonetheless, the applicants have amended claim 16 to more particularly point out and distinctly claim the subject matter which they regard as their invention. In particular, amended claim 16 recites a device that accepts "one to four amplifiers and the fraction of power provided to each of said amplifiers is  $1/N$  where  $N$  is the number of operative amplifiers."

Accordingly, claim 16 is allowable under 35 U.S.C. § 102(b). Claims 17 - 18 are also allowable in their own right under 35 U.S.C. § 102(b). Thus, the applicants respectfully request that the rejection of claims 16 – 18 under 35 U.S.C. § 102(b) be withdrawn.

### 3. § 103 Rejections

The Examiner has rejected claim 4 under 35 U.S.C. § 103 as being unpatentable for obviousness over Dittmer in view of U.S. Patent No. 6,097,266 to Nardozza.

According to the MPEP 2143, three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

**A. The prior art references do not teach or suggest all the claim limitations.**

As noted above, the Examiner has failed to make a *prima facie* case of anticipation with regard to independent claim 1. Applicants have amended claim 1 to positively recite a device that accepts "one to four amplifiers and the fraction of power provided to each of said amplifiers is 1/N where N is the number of operative amplifiers." Dittmer does not include this feature. The Examiner does not show where Nardozza remedies this deficiency.

Accordingly, the Examiner has failed to make a *prima facie* case of obvious under 35 U.S.C. § 103 because there has been no showing that the combination of Dittmer and Nardozza teaches or suggests all of the claim limitations of claim 4.

**B. There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.**

The Examiner states that "it would have been obvious to...have the impedance present by the input port and the output port be 50 Ohms as taught by Nardozza...." Applicants respectfully point out that this is an admission on the part of the Examiner that Nardozza does not, in fact,

teach or suggest the limitations of claim 4. It is simply improper for the Examiner to modify, or rewrite, the limitations of any claim to fit the teachings of a reference.

Further, it is well established that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). In this case, Dittmer's splitter 14 employs delay lines (60, 62, 64 etc.) to stagger splitter outputs to provide 180° of phase difference between the outputs. Dittmer also employs RC networks (40, 50) to provide isolation between the high-impedance transmission lines forming the dividers (20, 22) See col. 3, line 53 – col. 4, line 47. Nardozza's network clearly employs low impedance (50 Ohm) transmission lines. Accordingly, one of ordinary skill in the art would not be motivated to combine Nardozza with Dittmer, because it would require a change in the operating principle of Dittmer.

Thus, the Examiner has failed to make a *prima facie* case of obvious under 35 U.S.C. § 103 because Nardozza cannot be properly combined with Dittmer. Claim 4 is allowable under 35 U.S.C. § 103 for the aforementioned reasons and the applicants respectfully request that the rejection under 35 U.S.C. § 103 be withdrawn.

#### **4. Conclusion**

Based upon the amendments, remarks, and papers of record, Applicants believe the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicants respectfully request reconsideration of the pending claims 1 - 19 and a prompt Notice of Allowance thereon.

Applicants believe that a one-month extension of time is necessary to make this Response timely. Should Applicants be in error, Applicants respectfully request that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Response timely, and

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hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 50-1546 .

Please direct any questions or comments to Robert J. Sinnema, (315) 218-8170.

Respectfully submitted,

Date: July 22, 2005



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Robert J. Sinnema  
Registration No. 53,599  
Bond, Schoeneck & King, PLLC  
One Lincoln Center  
Syracuse, NY 13202  
315-218-8170